Family Communication Patterns and the Mediating Role of Communication Competence and Alexithymia in Relation to Nonsuicidal Self-Injury Citation metadata

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Abstract:

Nonsuicidal self-injury (NSSI) affects a growing number of youth and transitional-aged youth. Nock's (2009) comprehensive model of NSSI engagement points to a range of factors that combine to predict who is at a heightened risk for self-injury. The present study examined the impact of specific interpersonal factors, family communication patterns (i.e., conversation and conformity orientations), and communication competence on five supported measures of self-injurious behaviors. We further tested whether alexithymia, or a person's inability to identify and describe their emotions, mediated family communication patterns and communication competence in predicting NSSI behavior. Family communication patterns, specifically conversation orientation, had a positive impact on lifetime NSSI behaviors. While communication competence positively related to both lifetime and current NSSI behaviors, alexithymia mediated these relationships. Implications for treatment are provided.

Keywords: NSSI | Nonsuicidal self injury | communication | alexithymia | familial communication

Article:

Nonsuicidal self-injury (NSSI) is the deliberate self-infliction of immediate tissue damage without the intent to die (American Psychiatric Association, 2013). Over the past decade, researchers and clinicians have learned more about what leads to NSSI behaviors. Despite growing knowledge, rates of selfharm continue to rise, with one study showing the rate of NSSI engagement seven times higher in 2015 than in 2008 (Wester, Trepal, & King, 2017). This continued increase in prevalence stresses the need to understand additional factors that drive NSSI engagement so that alternative and preventive treatments can be implemented.

In his model of NSSI, Nock (2009) suggested NSSI behaviors result from a combination of distal risk factors (e.g., history of abuse, parental criticism), intrapersonal factors (e.g., aversive emotion), interpersonal factors (e.g., coping skills, poor communication skills), and NSSI vulnerability factors (e.g., self-punishment, implicit identification). Most of this model has been empirically supported, revealing that aversive emotions and coping skills have consistent,

strong relationships to NSSI (Glenn & Klonsky, 2009; Wedig & Nock, 2007; Wester, Downs, & Trepal, 2016; Wester & Trepal, 2010) and that all proposed NSSI vulnerability factors exist among individuals who self-injure (Wester & McKibben, 2016). However, much less attention has been given to what Nock (2009) labeled "poor communication skills" in his interpersonal factors.

Communication skills, or communication competence, are important to understand in relation to NSSI, as they have been linked to general psychological well-being (Shim, Mercer Kollar, Roberts, & Gustafson, 2016), social support, locus of control, and mindfulness (Query, Parry, & Flint, 1992; Wright, Banas, Bessarabova, & Bernard, 2010). Communication competence is defined as a person's ability to demonstrate skills by choosing from a range of available communicative behavior to accomplish communicative goals (Spitzberg, 1993; Wiemann & Backlund, 1980). Gompetent communication typically entails the ability to be flexible and relaxed in conversation, have empathy, and manage the interaction (Wiemann & Backlund, 1980). Both male and female participants were less likely to engage in NSSI if they felt it was easy to communicate with their parents and peers (Latina, Giannotta, & Rabaglietti, 2015). This suggests that ease of communication, which might be a rough approximation of communication competence, would be an important factor in decreasing or preventing NSSI behaviors.

While the interaction between communication competence and NSSI has not been directly examined, scholars have explored the impact of related constructs (e.g., coping skills, alexithymia). When an individual has poor communication skills, they may not reach out adaptively for emotional or instrumental support. Thus, individuals with a higher level of avoidance coping behaviors and a lower level of adaptive or problem-focused coping strategies are more likely to engage in NSSI behaviors (Wester et al., 2016; Wester & Trepal, 2010). Moreover, individuals who self-injure are more likely to experience borderline or clinical levels of alexithymia (i.e., difficulty in identifying and communicating feelings) compared to individuals who do not self-harm (Gatta, Dal Santo, Rago, Spoto, & Battistella, 2016). While these relationships offer useful avenues for understanding and treating NSSI, coping skills and alexithymia cannot be equated with general communication competence, or Nock's (2009) "poor communication skill" risk factor, as general communication competence is much broader than the ability to identify and communicate emotions or to cope by reaching out to others for help. For example, it is conceivable that an individual could seek social support in managing their emotions, but if they were unable to communicate competently, the need for help might not be effectively conveyed and responded to by others.

Within the literature, alexithymia and communication competence, though distinct constructs, have important overlap. Individuals who reported higher levels of alexithymia reported greater levels of behavioral communication (Ivanov & Werner, 2010). This suggests that individuals are more likely to express themselves indirectly through actions or nonverbal signals, as opposed to verbal messages, when they have higher levels of alexithymia. Higher alexithymia is also associated with a greater sense of loneliness, which in turn predicts lower intimate communication among couples (Frye-Cox & Hesse, 2013). Surprisingly, the relationship between general communication competence and alexithymia has not been much explored. Yet theoretically they share a common component of the (in)ability to express oneself to others skillfully, an important consideration in light of the strong association between emotion regulation and self-harm behaviors (Wester & Trepal, 2017).

Finally, NSSI behaviors, alexithymia, and communication competence are all believed to originate in or be impacted by the family environment. As Nock (2009) proposed, family conflicts and invalidating family environments place youth at higher risk of engaging in NSSI (Linehan, 1993; Tshan, Schmid, & In-Albon, 2015). Family communication styles have been directly linked to how adults communicate and express themselves later in life (Hall & McNallie, 2016) and to emotional intelligence and alexithymia (Hesse, Pauley, & Frye-Cox, 2015). Family communication patterns ultimately influence individuals' general health and well-being throughout their adult life (Hall & McNallie, 2016; Schrodt, Witt, & Messersmith, 2008). Two different family communication patterns have been discussed in family communication pattern theory: conversation orientation and conformity orientation (Ritchie & Fitzpatrick, 1990). Conversation orientation reflects a family's openness to dialogue, with each person's experience being valued, even if it leads to disagreements. Conformity orientation focuses on a hierarchy of communication that values harmony over individual ideas, discouraging open discussion or divergent opinions and expecting children to conform to parental views (Koerner & Schrodt, 2014; Ritchie & Fitzpatrick, 1990).

Given the gaps in the existing literature, it is important to explore family communication styles, along with communication competence and alexithymia, as they relate to NSSI. NSSI behaviors have been defined in the literature in various ways, including engagement in NSSI, number of methods used to self-injure, and frequency of NSSI. The research questions explored in this study include:

- Do family communication patters (conversation and conformity orientation) related to NSSI behaviors?
- Does communication competence relate to NSSI behaviors, and does it mediate the impact of family communication patters in NSSI behaviors?
- Does alexithymia mediate the relationship between communication competence and NSSI behaviors?

Methods

Sample

The sample consisted of 262 undergraduate first-year college students at a southeastern public university. Of the 262 participants, 209 identified as female (79.8%), 47 as male (17.9%), three as transgender (1.1%), and two as agender or gender-fluid (0.8%); one did not specify a gender. Approximately half the participants, or 139 (53.1%), identified as White or Caucasian, 61 (23.3%) as Black or African American, 20 (7.6%) as Latino/a or Hispanic, 20 (7.6%) as Asian, one (0.4%) as Native American, 18 (6.9%) as multiracial, and two (0.8%) as a race not identified in the survey choices (one did not specify racial identity). Most participants identified as heterosexual (84.0%), with 9.9% identifying as bisexual, 1.1% as gay, 0.4% as lesbian, and 4.6% as other (i.e., asexual, demisexual, pansexual, or questioning).

Measures

Deliberate Self-Harm Inventory--Adapted. NSSI was measured using the Deliberate Self-Harm Inventory-Adapted (DSHI-A), based on the Deliberate Self-Harm Inventory developed by

Gratz (2001). The DSHI-A consists of 12 different methods typically used to self-injure (e.g., cut, burn), including an option of "other" for participants to indicate an unlisted method. Participants are asked to report each method they have utilized currently (within 90 days) or in their lifetime. If they respond "yes" to current NSSI engagement, they are also asked to note the frequency with which they engaged in NSSI during the past 90 days. The DSHI-A is calculated into five potential variables: (1) NSSI lifetime engagement (yes/no), defined as a participant having utilized at least one NSSI method at some point in their life; (2) number of lifetime NSSI methods, summed as a numerical count from 0 to 12; (3) NSSI current engagement (yes/no), defined as a participant having utilized at least one NSSI method in the past 90 days; (4) number of current NSSI methods, a numerical count from 0 to 12 obtained by summing all "yes" responses for current NSSI methods; and (5) current NSSI frequency, a numerical count of the number of times an individual used each method in the past 90 days. The DSHI-A has been found to have adequate estimates of reliability (Cronbach's [alpha] = .70 on both lifetime and current engagement) and construct validity (Murray, Wester, & Paladino, 2008; Wester et al., 2016).

Revised Family Communication Pattern. Family communication patterns were measured through the Revised Family Communication Pattern (RFCP; Ritchie & Fitzpatrick, 1990), a 23-item instrument in which participants specify the degree to which each item is similar or dissimilar to their family communication styles. The RFCP consists of two scales: (1) conversation orientation (e.g., open family dialogue, value for individual experiences and opinions) and (2) conformity orientation (e.g., value for agreement over individual ideas, parents' meanings having importance over children's). The conversation orientation and conformity orientation scales have adequate evidence of construct validity and strong reliability of items, with both scales typically at or above a Cronbach's [alpha] of .76 (Hall & McNallie, 2016; Ritchie & Fitzpatrick, 1990). Reliability estimates for the current study are also high (Cronbach's [alpha] = .89 for conformity orientation, .94 for conversation orientation).

Interpersonal Communication Competence Scale. The Interpersonal Communication Competence Scale, or ICCS (Rubin & Martin, 1994), was used to measure an individual's ability to communicate effectively. The ICCS contains 30 items, which participants respond to on a Likert-type scale from 1 (almost never) to 5 (almost always). Higher scores indicate greater levels of communication competence. The ICCS has been found to have adequate reliability (Cronbach's [alpha] = .86); concurrent validity (Rubin & Martin, 1994); and, within the current sample, high internal reliability (Cronbach's [alpha] = .87).

Toronto Alexithymia Scale. Alexithymia was assessed using the Toronto Alexithymia Scale (TAS-20; Bagby, Parker, & Taylor, 1994), a 20-item selfreport scale measuring difficulty describing feelings, difficulty identifying feelings, and externally oriented thinking. Participants respond on a 5-point Likert-type scale from 1 (strongly disagree) to 5 (strongly agree), with higher total scores indicating greater inability to identify, label, or express emotions. The scores on the total TAS-20 have been found to have adequate reliability (Cronbach's [alpha] = .81), with test-retest reliability at r = .77, and convergent and concurrent validity (Bagby, Taylor, & Ryan, 1986). Reliability of scores for the total TAS-20 was [alpha] = .87; reliability for the subscales (a) Difficulty Describing Feelings, (b) Difficulty Identifying Feelings, and (c) Externally Oriented Thinking was [alpha] = .80, .90, and .61, respectively.

Procedure

In Fall 2015, all incoming first-year students (N = 2,775) received a recruitment e-mail containing a description of the study and a link to an online consent form and survey, with a maximum of two follow-up e-mails. A total of 408 students responded (14.7% response rate). Data were cleaned to remove respondents who were not first-year students, who did not respond to 60% or more of the questions, or who did not respond to the NSSI questionnaire specifically. This resulted in a final sample of 262 first-year students.

Data Analysis

Basic assumptions of normality and multicollinearity were explored, and no concerns were found for any of the independent or dependent variables. Multiple regressions were used to answer all research questions, with separate regression models conducted to capture variation among the five specific NSSI behaviors (lifetime NSSI, current NSSI, lifetime NSSI methods, current NSSI methods, and current NSSI frequency). Mediation was explored using Baron and Kenny's (1986) step process. Analysis using G* Power revealed a need for a minimum of 85 participants to have adequate power to avoid a Type II error.

Results

All means, standard deviations, and correlations of the dependent and independent variables are provided in Table 1. Almost half the participants reported engaging in NSSI at some point in their life (n = 117, 44.7%), using an average of 3.23 methods (SD = 2.17). Almost one-fifth (n = 51, 19.5%) indicated that they currently (within the past 90 days) engaged in NSSI, using an average of 1.86 methods (SD = 1.42). Those participants who reported currently engaging in NSSI engaged in it an average of 10.95 times (SD = 17.43, range 1 to 90) in the past 90 days. Based on criteria provided by Gatta et al. (2016), 22.4% of the entire sample reported levels of alexithymia above the clinical cutoff ([greater than or equal to] 61), with 31.2% of participants reporting borderline levels of alexithymia (51 to 60). When separating individuals who self-injured from those who had never self-harmed, 33.6% of participants who reported engaging in self-harm were at the clinical levels of alexithymia, compared to 14.1% who had never self-injured.

Family Communication Patterns

Separate regressions were used to explore the relationship between family communication patterns and each of the five NSSI behaviors (see Step 1 in each model in Table 2). Two of the five regression models were significant. Family communication patterns failed to directly explain any of the current NSSI behaviors. Specifically, the family communication pattern models (Step 1) were not significant for the number of current NSSI methods, $F(2, 217) = 0.49$, [rho] > .05, [R.sup.2] = .01; current engagement in NSSI, $F(2, 217) = 2.41$, [rho] > .05, [R.sup.2] = .022; and current frequency of NSSI, $F(2, 41) = 1.01$, [rho] > .05, [R.sup.2] = .053. However, the family communication patterns model was significant in explaining NSSI lifetime engagement, $F(2, 243) = 5.58$, [rho] < .01, [R.sup.2] = .044, and NSSI lifetime methods used, $F(2, 217) = 2.41$, [rho] < .01, [R.sup.2] = .022. Family communication patterns explained a small portion of variance in both lifetime NSSI behaviors, with conversation orientation being positively related and conformity orientation not being significantly related.

Table 1. Descriptive Information of Measures, and Correlations Between Dependent and Independent Variables

	Mean	SD	Correlation								
			1	2	3	4	5	6	7	8	9
1. Current NSSI engagement	N/A		--								
2. Lifetime NSSI engagement	N/A		.55**	--							
3. Lifetime NSSI methods	3.23	2.17	.64**	.74**	--						
4. Current NSSI methods	1.86	1.42	.76**	.42**	.62**	--					
5. Current NSSI frequency	10.95	17.42	^	^	.16	.23	--				
6. Alexithymia	52.20	11.92	.38**	.31**	.36**	.34**	.04	--			
7. Communication competence	103.14	14.11	.28**	-.22**	-.29**	-.25**	-.02	-.51**	--		
8. Family communication: Conversation orientation	43.60	12.26	-.14*	-.22**	-.21**	-.18**	-.21	-.18**	.19**	--	
9. Family communication: conformity orientation	34.45	7.23	.13	.06	.05	.15*	.01	-.15**	-.04	-.40**	--

Note: NSSI= nonsuicidal self-injury. N/A = not applicable because variables are categorical yes/no replies. A caret (^) indicates that the correlation could not be explored because the constant of NSSI engagement was 1= yes for anyone who had an NSSI frequency response. *p < .05. **p< .01

Table 2. Predictors of Nonsuicidal Self-Injury (NSSI) Behaviors

Predictors		B	SE B	Stand. β	t
Model 1: Engage in lifetime NSSI					
Step 1: Family communication	Family conversation orientation	-.01	.00	-.22	-3.21**
	Family conformity orientation	-.00	.01	-.03	-0.46
Step 2: Communication competence	Family conversation orientation	-.01	.00	-.19	-2.77**
	Family conformity orientation	-.00	.01	.-03	-.38
	Communication competence	-.01	.00	.16	-2.58*
Model 2: Engage in current NSSI					
Step 1: Family communication	Family conversation orientation	-.00	.00	-.08	-1.07
	Family conformity orientation	.01	.00	.09	1.23
Step 2: Communication competence	Family conversation orientation	-.00	.00	-.03	-0.41
	Family conformity orientation	.01	.00	.11	1.54
	Communication competence	-.01	.00	-.26	-3.93**
Model 3: Number of lifetime NSSI methods					
Step 1: Family communication	Family conversation orientation	-.04	.01	-.21	-3.05**
	Family conformity orientation	-.01	.02	-.04	-0.60
Step 2: Communication competence	Family conformity orientation	-.03	.01	-.17	-2.45*
	Family conformity orientation	-.01	.02	-.03	-0.48
	Communication competence	-.04	.01	-.24	-3.90**
Model 4: Number of current NSSI methods					
Step 1: Family communication	Family conversation orientation	-.01	.01	-.07	-0.90
	Family conformity orientation	.00	.01	.00	-0.04
Step 2: Communication competence	Family conversation orientation	.00	.01	-.02	-0.29
	Family conformity orientation	.00	.01	.02	0.20
	Communication competence	-.02	.01	-.24	-3.59**

Note. NSSI current frequency was not included in the table because the regression models were not significant.
*p < .05 **p < .01

Communication Competence

Communication competence was explored to see if it was related to NSSI behaviors and if it mediated family communication patterns with multiple regression analyses (see Step 2 in Table 2). The only regression model that was not significant was NSSI current frequency. For NSSI lifetime engagement and NSSI lifetime methods used, the regression model with conversation orientation, conformity orientation, and communication competence was significant, F(3, 243) = 5.98, [rho] < .01, [R.sup.2] = .07, and F(3, 243) = 8.55, [rho]< .01, [R.sup.2] = .097, respectively. Both models explained between 7.0% and 9.7% variance of NSSI lifetime engagement and methods used, respectively, equating to a small effect size. Communication competence was inversely related to NSSI lifetime behaviors and partially mediated conversation orientation, as can be observed by the slight decrease in the strength of the relationship (noted by standardized [beta]). However, conversation orientation maintained a direct relationship to both measures of NSSI lifetime behaviors.

Due to the lack of statistically significant relationship between family communication patterns in Step 1 and NSSI current engagement and methods used, communication competence could not serve as a mediator in these models. However, communication competence was found to significantly and negatively relate to both NSSI current engagement, F(3, 217) = 6.87, [rho] < .01, [R.sup.2] = .088, and number of methods, F(3, 217) = 4.64, [rho] < .01, [R.sup.2] = .061, both with a small effect size. Thus, as communication competence increases, these two NSSI behaviors decrease.

Alexithymia

Alexithymia was explored as a mediator of communication competence in predicting NSSI behaviors (see Table 3). Four of the five regression models were significant, with NSSI frequency not being a significant model. The other four NSSI behavior models were significant when alexithymia was added: NSSI lifetime engagement, F(4, 243) = 8.39, [rho] < .01, [R.sup.2] = .123; NSSI current engagement, F(4, 217) = 10.40, [rho] < .01, [R.sup.2] = .163; NSSI lifetime methods, F(4, 243) = 11.39, [rho] < .01, [R.sup.2] = .160; NSSI current methods, F(4, 217) = 7.50, [rho] < .01, [R.sup.2] = .123. In all four models, alexithymia fully mediated communication competence, which can be observed by the removal of the direct, statistically significant effect of communication competence on NSSI engagement and methods (see Tables 2 and 3). Alexithymia had a positive, significant direct relationship with each of the four NSSI behaviors. Family conversation orientation maintained its direct relationship with NSSI lifetime behaviors, suggesting that alexithymia did not mediate family communication patterns in these two models.

Finally, post hoc analyses were conducted to explore the three specific subscales of alexithymia to determine which subscales were significantly related to the four NSSI behaviors. (Model information is not provided here given the post hoc nature of this analysis, but information can be requested from the corresponding author.) The full models were explored as shown in Table 3, replacing alexithymia with the three TAS-20 subscales. In each of the four models, the only TAS-20 subscale that significantly related to NSSI behavior was Difficulty Identifying Feelings.

Table 3. Alexithymia as a Mediator of Nonsuicidal Self-Injury (NSSI) Behaviors

Predictors	B	SE B	Stand. β	*t*
Model 1: Engage in lifetime NSSI				
Family conversation orientation	-.01	.00	-.18	-2.60*
Family conformity orientation	-.00	.01	-.05	-0.81
Communication competence	-.00	.00	-.03	-0.35
Alexithymia	.01	.00	.27	3.82**
Model 2: Engage in current NSSI				
Family conversation orientation	.00	.00	-.01	-0.20
Family conformity orientation	.01	.00	.08	1.11
Communication competence	-.00	.00	-.10	-1.37
Alexithymia	.01	.00	.32	4.39**
Model 3: Number of lifetime NSSI methods				
Family conversation orientation	-.03	.01	-.15	-2.26*
Family conformity orientation	-.02	.02	-.06	-.96
Communication competence	-.01	.01	-.09	-1.36
Alexithymia	.05	.01	.30	4.25**
Model 4: Number of current NSSI methods				
Family conversation orientation	-.00	.01	-.01	-0.09
Family conformity orientation	-.00	.01	-.02	-0.23
Communication competence	-.01	.01	-.10	-1.28
Alexithymia	.03	.01	.29	3.89**

Discussion

While poor communication skills, or low communication competence, have been noted as one of the main interpersonal factors that increase the risk of engaging in NSSI behavior (Nock, 2009), this relationship has not been empirically tested. This study revealed that family communication patterns--specifically conversation orientation style--are important in explaining lifetime NSSI behaviors, but not current NSSI behaviors. Communication competence inversely relates to NSSI behaviors; thus, as competence in communicating increases, NSSI behaviors decrease. In addition, alexithymia mediates the impact of communication skills on NSSI behaviors.

Within the conversation orientation style of communication, family members, including youth within the family, are more likely to listen and open up conversations (Hall & McNallie, 2016; Ritchie & Fitzpatrick, 1990). Individual opinions and experiences are valued, even if they differ from those of the parents. This communication style in families relates to positive forms of communication across interpersonal relationships, including conflict management skills (Schrodt et al., 2008). Schrodt et al. (2008) stated that "conversation orientation equips children with information processing skills and communication behavior necessary for coping with stress and

for developing healthy relationships with people outside the family" (p. 263). Thus, a conversation-oriented communication style creates an open and accepting environment where all the individuals within a family can identify, describe, and experience emotions, leading to increased coping skills. Hesse et al. (2015) confirmed this theory, finding that conversation-oriented family communication patterns were negatively related to alexithymia, and conformity-oriented patterns were positively related to alexithymia. A positive communicative environment decreases the engagement in NSSI behaviors prior to entry in college, as noted by the relationship with NSSI lifetime behaviors in the current sample of first-year students.

Although conversation orientation was related to NSSI lifetime behaviors, conformity-oriented family communication was not related to any of the NSSI behaviors. This is consistent with the report by Schrodt et al. (2008) that conversation orientation tends to produce positive outcomes for family members, whereas outcomes for conformity orientation are less clear and seem to depend on subtle nuances of how authority is enacted in the family. The goal in conformity-oriented communication is for the family to avoid conflict and stress in the present, making agreement imperative. At times the need for agreement can be met simply by not having open conversations, while at other times it may require the introjection of ideas and thoughts. These nuances in enacting conformity communication patterns underlie the argument by Schrodt et al. (2008) that current and future behaviors can vary among children in a family.

Given that the population in the present study consisted of transitionalaged first-vear college students, most of whom were not living with their families, it makes sense that family communication patterns did not directly relate to NSSI current behaviors. While family communication patterns did not influence current NSSI behaviors directly, these communication patterns are still important, given the relationship that conversation orientation had with both communication competence and alexithymia--which in turn influenced current NSSI behaviors. Furthermore, lifetime NSSI behaviors are strongly related to current NSSI behaviors. Accordingly, helping families open lines of communication is important in decreasing NSSI behaviors.

Communication competence showed a direct relationship with current NSSI behaviors, but alexithymia fully mediated this relationship. This suggests that while communication competence (the ability to engage in conversation, be flexible, and comfortably interact with others) may be important in explaining NSSI, the ability to understand and identify one's feelings is more important. However, it should be noted that there was a moderate negative correlation between alexithymia and communication competence, revealing that as one's ability to engage in communication with others increases, the inability to identify and describe feelings decreases.

When exploring components of alexithymia and their relationship to NSSI behaviors, it was specifically the factor of difficulty in identifying feelings that related to NSSI behaviors. Thus, being able to identify, be aware of, and recognize what is occurring internally is an important factor that increases or decreases one's risk of engaging in NSSI. This has been supported by other researchers (Gatta et al., 2016; Pavio & McCullogh, 2004) but has not been explored in combination with communication competence. To know that alexithymia mediates more general communication ability is important because it offers insight into the central roles that emotion identification and subsequent regulation may play in NSSI behaviors.

Limitations and Clinical Implications

This study has limitations that should be noted. The sample included first-year students at only one mid-sized university, who were majority White and female, limiting generalizability. Furthermore, college populations tend to have one of the higher rates of self-harm compared with other populations (Wester & Trepal, 2017). This sample was consistent with previous findings of elevated NSSI rates among college students: Almost half the participants reported engaging in NSSI at some point in their life, and 19% engaged within the past 3 months. An additional limitation of the study was that, while it was assumed that first-year college students would still maintain some degree of communication with their families, this was not assessed formally.

Despite its limitations, the study has implications for working with clients. In working with younger clients, it may be important to include the larger family in treatment, specifically by assessing and addressing communication patterns. Positive outcomes have been documented as a result of conversation-oriented family communication patterns, not only for youth in their immediate family but also for relationships outside the family (Hall & McNallie, 2016; Hesse et al., 2015; Schrodt et al., 2008). Involving family members in counseling, in light of our results, may decrease an individual's engagement in NSSI and/or the number of methods used to self-harm, especially when the individual is younger or still living with their family.

While communication competence was related to NSSI behaviors, alexithymia interceded in this relationship, exposing the importance of alexithymia above and beyond that of general communication competence. Interestingly, when alexithymia was broken down into subscales, the only predictor of NSSI behavior was difficulty in identifying feelings. This inability to identify feelings trumped difficulty in communicating feelings and the tendency to focus thoughts externally versus internally. Being able to identify one's feelings could be a catalyst that ultimately leads to increasing communication skills when interacting with others. Basic psychoeducation around emotion vocabulary and the way emotions can be observed in the body might be helpful in both normalizing emotions and helping clients notice the signs that strong feelings are present. Dialectical behavior therapy has been effective in decreasing NSSI behaviors. This may be due to the four skills components offered, but it may also be due to the mindfulness component, as it helps individuals observe and describe their experiences and emotions nonjudgmentally--thus decreasing alexithymia. Given the current findings, it seems important to use mindfulness to help individuals gain awareness of internal thoughts and feelings, and where these are felt within their body, without judging them. Focusing on identifying feelings would not only assist in decreasing NSSI behaviors but perhaps also decrease other mental health difficulties that have relationships with alexithymia, such as depression or anxiety (Brunner et al., 2007).

Conclusion

NSSI behaviors have been increasing exponentially over the past decade. Family communication patterns, and specifically conversation orientation, are linked to decreases in NSSI lifetime behaviors, but also to increases in communication competence and decreases in alexithymia--both of which have been found to be related to current NSSI engagement and to the number of NSSI methods used. Helping families learn how to have more egalitarian and open forms of communication can support the development of coping skills and problem management, while also increasing clients' ability to identify and communicate feelings. Having stronger communication skills, and more specifically being able to identify one's feelings, can decrease

engagement in NSSI behaviors, suggesting the key roles that internal self-awareness and emotional language have in decreasing NSSI behaviors among youth and transitional-aged youth.

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